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APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO. 07/20/2001 09/682,107 Jefferson M. Kommers VIGN1270 5626 EXAMINER 25094 7590 03/15/2004 GRAY, CARY, WARE & FREIDENRICH LLP AL HASHEMI, SANA A 1221 SOUTH MOPAC EXPRESSWAY ART UNIT PAPER NUMBER **SUITE 400** AUSTIN, TX 78746-6875 2171

DATE MAILED: 03/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/682,107	KOMMERS ET AL.
	Examiner	Art Unit
	Sana Al-Hashemi	2171
The MAILING DATE of this communication ap Period for Reply	pears on the cover sheet with the c	orrespondence address
A SHORTENED STATUTORY PERIOD FOR REPL THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1. after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a rep - If NO period for reply is specified above, the maximum statutory period - Failure to reply within the set or extended period for reply will, by statut Any reply received by the Office later than three months after the mailir earned patent term adjustment. See 37 CFR 1.704(b).	136(a). In no event, however, may a reply be tin bly within the statutory minimum of thirty (30) day will apply and will expire SIX (6) MONTHS from e, cause the application to become ABANDONE	nely filed s will be considered timely. the mailing date of this communication. D (35 U.S.C. § 133).
Status		
1) Responsive to communication(s) filed on 13 F	ebruary 2004.	•
2a)⊠ This action is <b>FINAL</b> . 2b)☐ Thi	s action is non-final.	
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is		
closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.		
Disposition of Claims		
4) ⊠ Claim(s) <u>1-26</u> is/are pending in the application 4a) Of the above claim(s) is/are withdra 5) □ Claim(s) is/are allowed. 6) ⊠ Claim(s) <u>1-26</u> is/are rejected. 7) □ Claim(s) is/are objected to. 8) □ Claim(s) are subject to restriction and/o	awn from consideration.	
Application Papers		
9) The specification is objected to by the Examina 10) The drawing(s) filed on is/are: a) accomposite and applicant may not request that any objection to the Replacement drawing sheet(s) including the correct 11) The oath or declaration is objected to by the Examina 11.	cepted or b) objected to by the lead of a drawing(s) be held in abeyance. Section is required if the drawing(s) is objection is	e 37 CFR 1.85(a). jected to. See 37 CFR 1.121(d).
Priority under 35 U.S.C. § 119		
12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of:  1. Certified copies of the priority documen 2. Certified copies of the priority documen 3. Copies of the certified copies of the priority application from the International Burea * See the attached detailed Office action for a list	ts have been received. ts have been received in Applicationity documents have been received in (PCT Rule 17.2(a)).	on No ed in this National Stage
Attachment(s)		
1) Notice of References Cited (PTO-892)	4) Interview Summary	
<ul> <li>2) Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08 Paper No(s)/Mail Date</li> </ul>	Paper No(s)/Mail Da  5) Notice of Informal P  6) Other:	ate Patent Application (PTO-152)

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#### **DETAILED ACTION**

Claim Status: 1 -26 are rejected.

Applicant's arguments filed 2/13/2004 have been fully considered but they are not persuasive.

### Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-24 rejected under 35 U.S.C. 103(a) as being unpatentable over Caid et al. (US Patent No. 5,619,709) in view of Light (US Patent No. 5,774,888).

1. Regarding Claims 1, 7, 13, and 19, Caid discloses a method of searching for a plurality of information objects comprising:

Receiving a first query, (see Fig. 2A, column 6, lines 38-45, Caid); searching the database using the second query (see column 5, lines 26-36, Caid);

finding a first identifier for a first: information object that corresponds to the second

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query, wherein the first information object is part of the plurality of information objects (see column 5, lines 37-48, Caid);

Caid does not disclose the step of automatically expanding a scope of a search from the first query to a second query. However, Light discloses automatically expanding the scope of search (see column 4, lines 60-63, Light). It would have been obvious to the ordinary skilled artisan at the time of the invention to add/modify the Caid system by expanding the scope of search with the motivation of providing users with more options and higher number of responses which increases the possibility of receiving all the results needed.

2. Regarding Claims 2, and 14, the combination of Caid and Light discloses a method wherein:

the database comprises a plurality of information objects including the first information object and a plurality of keywords and a hierarchy of keyword, wherein the plurality of keywords include a first keyword and a second keyword (see column 5, lines 55-58, Caid);

each information object within the plurality of information objects has at least one related keyword from the plurality of keywords (see column 5, lines 37-48, Caid);

the hierarchy defines a relationship among the keywords lying at a different levels within the hierarchy (see Fig. 14, Caid;

the first query comprises the first keyword but not the second keyword (see Fig. 14, Caid; and

the second keyword query comprises the first and second keyword (see column 5, lines 59-62, Caid).

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3. Regarding Claims 3, and 15, the combination of Caid and Light discloses a method further comprising:

automatically determining a first association score between the first keyword and the second keyword based at least in part upon their positions within the hierarchy (see column 13, lines 1-8, Caid).

- 4. Regarding Claims 4, and 16, the combination of Caid and Light discloses a method further comprising automatically determining a second association score between the first keyword and the third keyword based upon their positions within the hierarchy, wherein expanding the first query is performed such that the second query does not include the third keyword (see Fig. 4, Caid).
- 5. Regarding Claims 5, and 17, the combination of Caid and Light discloses a method further comprising filtering at least some of the information objects within the plurality of information objects to meet a defined criterion (see column 13, lines 40-46, Caid).
- 6. Regarding Claims 6, 18, 25, and 26, the combination of Caid and Light discloses a method further comprising:

determining an association score between each keyword within the first query and each keyword within the second query based at least in part upon their positions within a hierarchy; and

calculating a first relevance score for the first information object, wherein (see column 11, lines 20-25, Caid)

at least one first relevancy rating is obtained for the first information object (see column 11, lines 11-15, Caid);

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the first relevance score includes a first sum divided by a number of keywords within the second query (see column 11, lines 11-15, Caid);

the first sum includes a first summation of first products (see column 11, lines 16-20, Caid);

and for each keyword within the second query, its first product includes a corresponding first association score and a corresponding first relevance rating (see column 4, lines 40-45, Caid).

7. Regarding Claims 8, and 20, the combination of Caid and Light discloses a method further comprising:

searching a database using the second query, wherein an information object is associated with the second keyword but is riot associated with the first keyword (see column 6, lines 27-30, Caid);

and sending a second signal that includes an object identifier for the information object (see column 6, lines 30-37, Caid)..

8. Regarding Claims 9, 11, and 23, the combination of Caid and Light discloses a method wherein:

the first keyword, the second keyword, and a third keyword are represented by a first node, a second node, and a third node, respectively, within a keyword hierarchy (see Fig. 14, Caid);

the method further comprises determining a first association score between the first node and the second node and a second association score between the first node and the third node,

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wherein the first and second association scores indicate that the first node is more closely associated with the second node than the third node (see column 13, lines 1-8, Caid);

and expanding is performed such that the second query does not include the third keyword (see column 6, lines 40-46, Caid).

- 9. Regarding Claim 10, the combination of Caid and Light discloses a method automatically determining an association score between the first keyword and the second keyword based at least in part upon their positions within keyword hierarchy, wherein one keyword lies at a parent node and another keyword lies at a child node within the keyword hierarchy (see column 13, lines 1-8, Caid).
- 10. Regarding Claim 11, Caid discloses a method wherein the association score is a function of a distance between connected nodes within a keyword hierarchy, wherein one keyword lies at a parent node and another keyword lies at a child node within the keyword hierarchy (see Fig. 14, Caid).
- 11. Regarding Claims 12, and 24, Caid discloses a method wherein automatically determining the association score includes determining a first common ancestor wherein one keyword lies at a parent node and another keyword lies at a child node within the keyword hierarchy (see column 9, liens 55-59, Caid).
- 12. Regarding Claim 21, the combination of Caid and Light disclose a data processing system readable medium wherein:

the first keyword, the second keyword, and a third keyword are represented by a first node, a second node, and a third node, respectively, within a keyword hierarchy (see Fig. 2A, Caid);

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the method further comprises determining a first association score between the first node and the second node and a second association score between the first node and the third node (see Fig. 2B, Caid);

wherein the first and second association scores indicate that the first node is more closely associated with the second node than the third node (see Fog. 2C, Caid); and

expanding is performed such that the second query does not include the third keyword (see Fig. 2F, Caid).

13. Regarding Claim 22, the combination of Caid and Light discloses a data processing system readable medium the method further comprises automatically determining an association score between the first keyword and the second keyword based at least in part upon their positions within the hierarchy (see column 13, lines 1-8, Caid).

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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#### Response to Amendment

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Applicant argues that Caid in view of Light fails to disclose "expanding a scope of search from a first query to a second query.

Examiner disagrees. Referring to Fig. 2 A- F, Caid does teach the step of selecting a keyword from the list of hierarchy of keywords and column 4, lines 60-63 Light, the combination clearly teaches the method of employing additional steps to expand the scope of terms by adding synonymous terms as taught by Light. On the other hand Caid does expand the search within the requested terms and it's not a step of narrowing down the search on the contrary if it take the search to a specific path, which is more related to the requested term as shown in Fig. 2 A-F.

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## Points of Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to: Sana Al-Hashemi whose telephone number is (703) 305-4881. The examiner can normally be reached on Monday - Friday from 8:00 AM to 4:30 PM.. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic, can be reached on (703) 308-1436. Any response to this office action should be mailed to: The Commissioner of Patents and Trademarks, Washington, D.C. 20231. Or telefax at phone number (703) 872-9306. For formal or draft communications, please label "PROSPOSED" or "DRAFT". Hand-delivered response should be brought to Crystal Park II, 2121 Crystal Drive, 6<sup>th</sup> Floor Receptionist, Arlington, Virginia. 22202.

Sana Al-Hashemi Patent Examiner Technology Center 2100 March 11, 2004

> SAFET METJAHIC SUPERVISORY PATENT EXAMINER TECHNOLOGY CENTER 2100